

Date: Mon, 18 Jan 93 14:38:08 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #77
To: Info-Hams

Info-Hams Digest Mon, 18 Jan 93 Volume 93 : Issue 77

Today's Topics:

 "Endurance"
 [ANS] Changing tubes in SWAN 350 hf transceiver
CDMA Packet Radio (WAS Re: Who do repeater coordinators represent?)
 CQ SC CQ HI
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 Further evidence (?)...
 HELP! needed w/ antenna switch
 I PASSED!!! (was Format of Code Exams?)
 Mac Freq Database
 New MFJ-1796 Halfwave Vertical Comments
 no subject (file transmission)
 QRP on 20, 30, or 40 meters
 Radio/Satellite Tracking
 Space Shuttle's Audio Rebroadcast
 Tektronix 491 spectrum analyzer/Tek 485 scope
 THE most accurate clock? (2 msgs)
writing out -- --- .-. in order to pass your exam

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 18 Jan 1993 17:14:38 GMT
From: Cadence.COM!jdm@uunet.uu.net
Subject: "Endurance"
To: info-hams@ucsd.edu

Greetings to readers of QST!

My short-story, "Endurance," will appear in the February issue of QST.

I'd love to hear from you if you've read it.

I'm jdm@cadence.com.

73

Joe

--

Joe Mastroianni	AKA: AA6YD AA6YD @ N6LDL.#NOCAL.CA.USA.NA
Cadence Design Systems	Compuserve: 74017,310 Genie: JOE-M
Santa Clara Ca.	"Up the airy mountain;down the rushy glen; we
jdm@cadence.com	daren't go a hunting; for fear of little men "

Date: 18 Jan 93 21:22:39 GMT
From: news-mail-gateway@ucsd.edu
Subject: [ANS] Changing tubes in SWAN 350 hf transceiver
To: info-hams@ucsd.edu

>Subject: [ANS] Changing tubes in SWAN 350 hf transceiver

>I never have seen a ham rig with two neutralizing
>capacitors in the final section. I am guessing that
>you neutralize on ten meters if possible. You might
>need to compromise the neutralization. What you are
>after is maximum power out per the ratings the designer
>has specified. Often you can back your power down a bit
>and not hurt anything. Also, increase your final tube
>bias, if you can, so the power output just drops. I like
>to add a 220-volt fans on 120-volts. Such a fan can run
>rather quiet.

>Ron
>AK0N

>Well the manual specifically says there are two neutralizing capacitors
>off hand I think the numbers are C413 and C315, I have not been able to
>locate the 10 meter one, any help in this regard is greatly appreciated.

>73's DE kb5udf

Yes, there are TWO neutralizing caps in the 350 (don't have schematic here to identify which is which); the large one is mounted vertically in the high-voltage finals cage and can be adjusted from beneath the chassis (after you remove the bottom cover -- be careful to remove the 4 SMALL NUTS which attach to the oscillator cover). I think this adjustment is done on 20M around 14.150MHz. The small one is for 10M neutralizing and is mounted beneath the chassis and must be adjusted from the side nearest the RF finals.

Like most recollections from years past, this one is prone to error also !!
73, Bob -- WB5FBS

```
*-----*
| Robert G. Priez                                Internet:BOBPRIEZ@SELU.EDU|
| P.O. Box 683, SLU                             BitNet:BOBPRIEZ@SLU   |
| Hammond, LA 70402                             Fax:504-549-5557           |
|                                                Office:504-549-2184      |
|      **Old musicians never die, they just diminuendo.....**      |
*-----*
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Date: Mon, 18 Jan 1993 16:32:36 GMT
From: sdd.hp.com!hpscit.sc.hp.com!news.dtc.hp.com!srngenprp!glenne@network.UCSD.EDU
Subject: CDMA Packet Radio (WAS Re: Who do repeater coordinators represent?)
To: info-hams@ucsd.edu

I'm implementing DS spreading in my second phase of higher speed radios which are to be part of the "layer 3 TNC" we're working on for user access to a higher speed wide area amateur digital network. This is being done to help combat multipath on less than optimum paths. I haven't yet found the limitation of spreading codes; the particular 7,13 and 19 bit sequences specified by the FCC, to be too much of a problem. Since I'm already using a moderately wide information bandwidth, pushing 1 MHz, I run out of spectrum within the band before I run out of code length. Specifically, at 1200 MHz I only have about 50 MHz to spread in (1240-1290 MHz so that weak signal at 1296 can be adequately protected) and if the data is randomized to begin with, a 7 bit code with 127 states is more than enough to "fill in the holes".

For those that want to play with SS, the ARRL Spread Spectrum book and of course the original reference, "Spread Spectrum Techniques" by Dixon are good starting places. I'm not a member but I understand that the amateur group, AMRAD, is also supporting and furthering amateur investigation of SS.

I'm happy to exchange ideas/solutions with others that are experimenting with SS for amateur uses.

Glenn Elmore n6gn

N6GN @ K3MC
amateur IP: glenn@SantaRosa.ampr.org
Internet: glenne@sr.hp.com

Date: 18 Jan 93 16:14:27 GMT
From: sunriv!ronh@uunet.uu.net
Subject: CQ SC CQ HI
To: info-hams@ucsd.edu

I'm trying to complete the 75 meter extra class Worked All States award and need 2 states to finish it up; South Carolina and Hawaii. If you hold an extra class format call, live in either of these states, can work 75 meters, and would be willing to set up a schedule with me, please send email.

Thanks,
Ronnie D. Hughes, N5CSE | ronh@sunriver.com or
SunRiver Corp. | uunet!sunriv!ronh
2600 McHale Court, #125 | (512) 835-8001 ext. 118
Austin, TX 78758 |

Date: 18 Jan 1993 20:15:18 GMT
From: usc!news.bbn.com!bbn.com!levin@network.UCSD.EDU
Subject: FT990 mod for extended tx
To: info-hams@ucsd.edu

In <76900@apple.apple.COM> kchen@Apple.COM (Kok Chen) writes:
|You have to raise power to 8W or so to get the automatic antenna tuner
|to buzz and click. That may be why the power control knob would not
|go below 10W on a stock unit; would only confuse all the appliance
|operators :-).

I don't know, I thought the manual was pretty explicit about setting the power knob at 9:00 to tune, 12:00 above 20 mhz.

/J

=

Internet: levin@bbn.com | USPS: BBN Systems and Technologies Division
UUCP: levin@bbn.com | Mail Stop 6/5A
Telco: (617)873-3463 | 10 Moulton Street
N1MNF | Cambridge, MA 02138

Date: 18 Jan 93 13:28:07 CST
From: timbuk.cray.com!hemlock.cray.com!cherry10!dadams@uunet.uu.net
Subject: Further evidence (?)...
To: info-hams@ucsd.edu

Oh, one other standard reason in favor of CW: More users can use
the same bandwidth.

--David C. Adams Statistician Cray Research Inc. dadams@cray.com

Old Sourdoughs never die. They just ferment away.

Date: Sun, 17 Jan 1993 07:31:41 GMT
From: decctrl!news.crl.dec.com!dbased.nuo.dec.com!nnnpd.lkg.dec.com!
nnnpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com
Subject: HELP! needed w/ antenna switch
To: info-hams@ucsd.edu

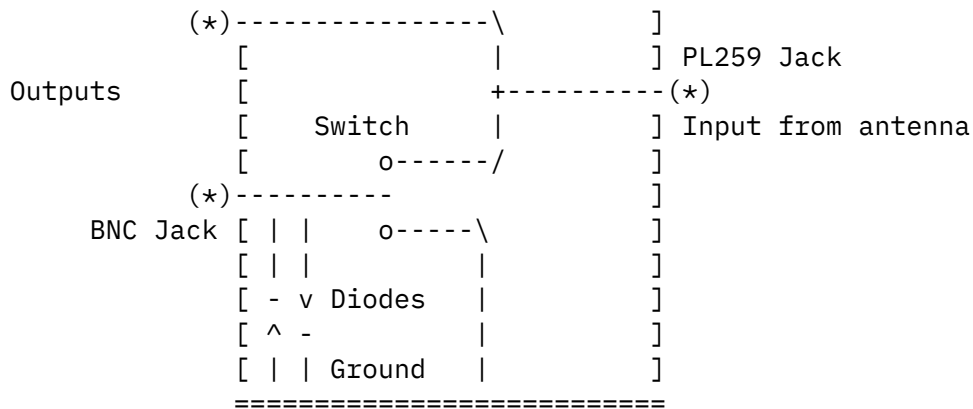
mladair@mtu.edu (MATTHEW L. ADAIR) writes:

>Here is what I ran into - even when the switch is off, I still receive
>signals on my scanner. I didn't even bother to try transmitting with my
>HT because I figured I would nuke the scanner.

>
>Now the question - How do I avoid this??? I figure it must have
>something to do with the inductance with the wires inside the box. I

Simple question for you. Is the switch a SPST switch? If so, a SPDT
should solve your problem. Connect the other side of the switch to ground.
That will then ground the output jack to the scanner when the HT is in use.
If you're really paranoid, take a couple of diodes and clamp the scanners
output jack by connecting the diodes from the center conductor to ground.
One with the cathode to ground, the other with the cathode to the center
conductor like:

```
=====
[                                     ]
BNC Jack [                             ]
```



This will hold the signal voltage at the scanner to less than .7 volts if you use silicon diodes 1N4001 or similar. There are carrier sense circuits that would be fairly easy to build out of 3 NPN transistors, 4 diodes, and some misc capacitors and resisistors, but then you'll also need power, the relays, etc. You might be better off playing with some PIN diodes and building a circuit to switch out the scanner with those. Check out the ARRL Handbook for information on PIN diode switching.

73,
Todd
N9MWB

Date: Mon, 18 Jan 1993 19:10:01 GMT
From: swrinde!cs.utexas.edu!convex!constellation!essex.ecn.uoknor.edu!
usenet@network.UCSD.EDU
Subject: I PASSED!!! (was Format of Code Exams?)
To: info-hams@ucsd.edu

In article <8y89wB1w165w@jackatak.raider.net> martinbw@jackatak.raider.net (Bruce Martin) writes:

>jahern@geohub.gcn.uoknor.edu (Jud Ahern) writes:

>

>> I'm studying up for my Extra code exam, and got to wondering: Is the
>> exam multiple-choice or fill-in-the-blank? The FCC Rule Book says
>> the format is up to the VEs, but what is the norm? Does it depend
>> on whether the VE group is ARRL or W5YI, etc.? I'd think the
>> multiple choice would be MUCH easier, no? Naturally, I plan to be
>> at the point where it won't make any difference, but it is helpful
>> to know what to expect when going into an exam.

>>

>> Finally, is 7 correct out of 10 passing or not? I thought it was, but

>> my SuperMorse program said I failed when I got 7 out of 10. [Yes,
>> I know the program is not the final judge, but I would have guessed
>> their criteria would be the same as "real exams".]
>>
>I recently took the 20 wpm code test at an ARRL VE exam session. All of
>the tests were multiple choice.
>
>Bruce
>
>--
> martinbw@jackatak.raider.net (Bruce Martin)
>-----jackatak.raider.net (615) 377-5980 -----

Well, I took the 20 wpm test Saturday morning and passed! It was multiple choice, although I had learned the month before they had used true/false (which could be very hard if they want to be tricky, like: His QTH was Mississippi (T/F?) Answer: False, it was Mississippi). I got all 10 right, but the 10th was a lucky guess. Not to discourage anyone, but I was amazed at how my hand cramped up with nerves, making me copy much worse than at home. I didn't have this problem when I took the 13 wpm back in 1966 (kids have no fear!). The lesson, I guess, is to be at least little over-prepared, to account for the "choke" effect. I now appreciate people who can hit free throws when down by 2 with 3 seconds left...

Thanks to all who e-mailed and posted information and encouraging words. My kids and wife are elated that they don't have to hear that racket and share the computer with me anymore!

On cloud 9,

Jud

```
+-----+
| Jud Ahern KC5RI           Bitnet: jahern@uokgcn.bitnet       |
| Geology & Geophysics      Internet: jahern@geohub.gcn.uoknor.edu |
| University of Oklahoma    "Opinions expressed here reflect the entire|
| Norman, OK 73019          University, in one convenient location." |
+-----+
```

Date: Mon, 18 Jan 1993 19:52:37 GMT
From: news.encore.com!wizard!slightbo@uunet.uu.net
Subject: Mac Freq Database
To: info-hams@ucsd.edu

Does anyone know of a scanner frequency database program for the MAC?

Date: Mon, 18 Jan 1993 13:59:49 GMT
From: sdd.hp.com!hpscit.sc.hp.com!icon.rose.hp.com!greg@network.UCSD.EDU
Subject: New MFJ-1796 Halfwave Vertical Comments
To: info-hams@ucsd.edu

Jim,

Please post a summary, if you would. I'm considering buying one, and would like to hear some first-hand experiences.

Greg KD6KGW

Date: 18 Jan 93 17:09:59 GMT
From: news-mail-gateway@ucsd.edu
Subject: no subject (file transmission)
To: info-hams@ucsd.edu

Hi

I am interested in receiving HF fax or RTTY on a PC . I have some HF fAX software but do not have any hardware. I know there is a standard RS232 interface using an OP AMP and a few components. Does anybody have this circuit diagram ?. If so could they Email me a description or fax it to me ?.
Tks

Finbarr Sheehy
Analog Devices B.V.
Raheen Industrial Estate,
Limerick,
Ireland.

Email address : finbarr.sheehy@analog.com

Fax : 353 61 301164

Date: Mon, 18 Jan 1993 15:04:47
From: swrinde!cs.utexas.edu!asuvax!chnews!spence!swilhelm@network.UCSD.EDU
Subject: QRP on 20, 30, or 40 meters
To: info-hams@ucsd.edu

I have been considering purchase of a QRP rig for portable use, backpacking, camping, etc. Since most of the QRP rigs that I have been looking at are single band rigs, what band would be best to get? I hope to shortly upgrade to GENERAL class so 80, 40, 30, 17, 15, 10 meter operation will all be possible. We are approaching the low side of the sun spot cycle so 10 and 15 don't look good for the near future. Have any of you an opinion? I am also interested in you experiences with QRP in general. Is there enough interest to start a QRP sub group?

--

Spence Wilhelm
(602)554-5050
CH2-47

KB5CYX/KT

Intel Corporation
5000 W Chandler Blvd
Chandler, Arizona 85226

Date: 18 Jan 93 18:18:34 GMT
From: news-mail-gateway@ucsd.edu
Subject: Radio/Satellite Tracking
To: info-hams@ucsd.edu

Bill will@wixer.cactus.org says:

An additional observation, I heard of devices used in the trucking industry to track containers across the country. Does this sytem use satellite and possibly cellular phone service to report the position?

I say:

There is a group in Kent, WA (Meteor Communications Corp) who specialise in meteor scatter comms for commerical use. One of their applications was to track trucks by exchanging data with an onboard system that includes a GPS receiver and a MS packet modem a small vertical antenna and a 10 to 50 watt TX. With this system the whole of the USA can be covered from two control sites using MS to contact each truck. The trick is essentially QSK -- the TX RX switching time is held under 1mS -- the bursts last from 0.1 to 1s. The control station asks for info, when remote station hear the control, it sends a message indicating that, the control ACKs the message, the remote sends the data, the control ACKs that. All in one meteor burst! None of the SSB "Roger, Roger, Roger, Roger, Roger, Roger, Roger, Roger, Roger, Roger, Roger, Roger, Roger" chants!

The control stations are interesting in that they tend to use phased arrays for beam steering with a reasnoable gain and power output.

This system is inexpensive (far less so than satellite) and has better coverage than cellular (imagine loosing your truck in Wyoming!). Similar systems have been used to do remote weather observations, snowpack depth, animal tracking in remote parts of Canada. Recently they demonstrated voice telephone over a digital MS link (average throughput of 9600 baud, but is very bursty).

This is the sort of thing interested amateurs could do. Need to define a protocol based around AX25 and a fast modem standard.

72/73 Kevin, N7WIM / G8UDP
a-kevinp@microsoft.com

Any hams doing

Date: 18 Jan 93 19:34:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: Space Shuttle's Audio Rebroadcast
To: info-hams@ucsd.edu

Hello,

I was wondering if anyone was a rebroadcasting the space shuttle's audio in the Rochester, NY area? If so, what frequency?

Thanks and 73

Tom Jennings, KV2X

Date: Mon, 18 Jan 93 17:28:43 GMT
From: usc!howland.reston.ans.net!bogus.sura.net!jhunix.hcf.jhu.edu!
aplcen.apl.jhu.edu!joses-mac.jhuapl.edu!user@network.UCSD.EDU
Subject: Tektronix 491 spectrum analyzer/Tek 485 scope
To: info-hams@ucsd.edu

In article <1993Jan17.235717.10434@sbcs.sunysb.edu>, rick@cs.sunysb.edu
(Richard Spanbauer) wrote:

> Tektronix 491...if anyone has one of these units, or
> has an opinion on them, I would like to hear from you!
>

When the 491 was introduced, it represented more-than-sufficient proof that Tek should stick to making oscilloscopes. It is not

a good spec analyzer, yet it is better than most of the cheesy "CATV tuner module" analyzers now being advertised in the trade rags.

It is very good for <250 MHz work, being reasonably stable and having useful IF resolution to obtain meaningful deviation and spur observations.

There are many ways it falls short of being a good bench analyzer, e.g., CRT spans 40 dB max, never sure what the frequency is, poor mixer performance, etc. This is not the analyzer you will want to keep, although you may want to buy it and use it on your bench until you can afford what you want.

Marshall Jose
josemj1@aplmail.jhuapl.edu

Date: Mon, 18 Jan 1993 19:02:13 GMT
From: agate!usenet.ins.cwru.edu!magnus.acs.ohio-state.edu!sbbrown@ames.arpa
Subject: THE most accurate clock?
To: info-hams@ucsd.edu

In article <1993Jan16.205906.5883@magnus.acs.ohio-state.edu>
rlong@magnus.acs.ohio-state.edu (Ronald K Long) writes:
>You can mail order from a ham store in the UK. If anyone knows of
>a USA source speak up.

Heath used to make a WWV RX/clock. I think they still do, but I haven't looked at a catalog lately. You can also get plug in ones for PCs.

--
Steve Brown, N8HFI sbbrown@magnus.acs.ohio-state.edu
Chief Engineer, The Ohio State University Radio Observatory ("Big Ear")

Date: Mon, 18 Jan 93 20:16:21 GMT
From: sequent!muncher.sequent.com!edw@uunet.uu.net
Subject: THE most accurate clock?
To: info-hams@ucsd.edu

In article <9301160529.AA07977@ucsd.edu> FLEM%athena@leia.polaroid.COM (SKIP FLEM, NT1G, 14X17 NEWTON-1M 617-630-4482) writes:
> Last evening I saw a clock that sets itself to WWVB. It is made in
>Germany by Junghans (Black Forest watch/clock maker). It is tomb-stone

HEATHKIT has had this type of radio for years

--

-- I think I've got the hang of it now :w :q :wq :wq! ^d X exit ^X^C ~.
^[x X Q :quitbye CtrlAltDel ~~q :~q logout save/quit :!QUIT ^[zz ^[ZZ
ZZZZ ^H ^@ ^L ^[c \$q ^# ^E ^X ^I ^T ? help helpquit ^D ^d ^C ^c help
^]q exit ?Quit ?q anybackbone!sequent!edw edw@sequent.COM KA9AHQ 28.340

Date: 18 Jan 1993 19:01:52 GMT

From: usc!howland.reston.ans.net!spool.mu.edu!studsys.mscs.mu.edu!

jason@network.UCSD.EDU

Subject: writing out -- --- .-. in order to pass your exam

To: info-hams@ucsd.edu

In article <ocPHXB4w165w@jackatak.raider.net> blakebow@jackatak.raider.net (blake bowers) writes:

>miles@ms.uky.edu (Stephen D. Grant) writes:

>

>> at a recent W5YI VEC testing, a female wrote down all .'s and -'s and

>> was allowed to do so. she got her general (while 4 others struggled).

>> i was going to use this "cheat" method myself. is it legal or not?

>>

>This method is legal, though sometimes is can be a fight to get people to

>accept it.

It is LEGAL, but not all VECs allow it. I know MARAC VEC doesn't. They warned me against doing that when I took my general. (I wasn't going to anyway.)

--

Jason Hanson | 915 W. Wisconsin Ave #1010 | (414) 288-2179

Marquette University | Milwaukee, WI 53233-2373 | Ham Radio: N9LEA/AA

-- jason@studsys.mscs.mu.edu ==+== n9lea@n0ary.#nocal.ca.usa.na --

Date: Mon, 18 Jan 93 20:14:43 GMT

From: sequent!muncher.sequent.com!edw@uunet.uu.net

To: info-hams@ucsd.edu

References <1993Jan14.203646.1852@IRO.UMontreal.CA>,

<1993Jan15.140206.29974@e2big.mko.dec.com>, <105146@netnews.upenn.edu>

Subject : Re: radio wave jamming or scrambling... A SOLUTION

In article <105146@netnews.upenn.edu> jfk@eniach.seas.upenn.edu (Natasha) writes:

>In article <1993Jan15.140206.29974@e2big.mko.dec.com> johnson@swings.enet.dec.com
(Dennis M. Johnson) writes:

>>In article <1993Jan14.203646.1852@IRO.UMontreal.CA>, quennevi@IRO.UMontreal.CA
(Pokey Bangs) writes:

```
>>|>Path: e2big.mko.dec.com!nntpd.lkg.dec.com!news.crl.dec.com!decctl!caen!
saimiri.prima.te.wisc.edu!ames!olivea!charnel!sifon!CC.UMontreal.CA!
IRO.UMontreal.CA!kovic.IRO.UMontreal.CA!quennevi
MONDO STUFF DELETED
>>|>
>>|>Hi,
>>|> my neighbors are driving me nuts with their radio
>>
>>Ayup, go over and talk to them. Preferably in a civil tone that does not
> Jamming radio signals is a violation of law.
```

All that aside, I used to have a neighbor who played the rap music
REAL LOUD and was not interested in polite requests.

Might I suggest that a signal generator at the frequency of the station
or the IF of the radio works real well.
Its the old "strongest signal wins" routine.

Eventually behavior conditioning won out... " Gee ? Duh, my radio
don't get KRAP when I play it loud at home" so He got to "boom and thud"
in his car (When it was away from the apts :-)) and he got to listen
a reasonable volume level at home.
I sincerely hope he spent a lot of money on service for the set.
I know he took it to the shop several times :-)

Obligatory political correctness and sensitivity to others follows:
Did I possibly screw up other people ? Probably. did I care ? No !

A bazooka would have been more satisfying ! :-)

--

```
-- I think I've got the hang of it now .... :w :q :wq :wq! ^d X exit ^X^C ~.
^[x X Q :quitbye CtrlAltDel ~q :~q logout save/quit :!QUIT ^[zz ^[ZZ
ZZZZ ^H ^@ ^L ^[c $q ^# ^E ^X ^I ^T ? help helpquit ^D ^d ^C ^c help
^]q exit ?Quit ?q anybackbone!sequent!edw edw@sequent.COM KA9AHQ 28.340
```

End of Info-Hams Digest V93 #77
